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July 5, 2000

The Honorable Rosalyn Millman
Acting Administrator
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Subject: Docket No. NHTSA-99-6407; Final Rule
FMVSS No. 208, Occupant Crash Protection

-153

Dear Acting Administrator Millman:

American Honda Motor Company, Inc. supports the above-referenced final rule and wishes to make comments directed toward improving the test specifications and clarifying some procedures.

If you have any questions, or require further clarification, please contact us at your earliest convenience.

Sincerely,

AMERICAN HONDA MOTOR CO., INC.



William R. Willen
Managing Counsel
Product Regulatory Office

WRW:ke

Attachment

EXHIBIT PROCEEDINGS
2000 JUL -6 A 11:34
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

ES2000071384

**Honda Comment on
FMVSS 208—Occupant Crash Protection
Advanced Airbags
Docket No. NHTSA-99-6407; Final Rule**

Comment 1: 300 Msec Issue

We support and encourage NHTSA to modify S4.11(a) as requested in AIAM's Petition for Reconsideration, which we fully support.

We would also like NHTSA to amend the requirements of S4.11(a) as follows:

S4.11(a)

For all barrier crashes, For low risk deployment tests, the injury criteria shall be met when calculated based on data recorded for 300 milliseconds after the air bag is signaled to deploy. *Injury measurements recorded as a result of dummy contact with the vehicle interior when the dummy's head, neck, and upper torso are no longer engaged in the air bag will not be considered in determining peak injury values.*

Comment 2: C3Y and C6Y Dummy Positioning in S22.4.3.4 and S24.4.3.4

Differences in the dummy's leg positions can effect the kinematics of the dummy and thus affect the injury measures, especially with a "top mount" air bag. S22.4.3.6 and S24.4.3.6, which call for rotating the dummy thighs and legs, do not adequately control the leg positioning of the dummies. While we do not have a specific suggestion at this time for this repeatability/reproducibility problem, we believe some further specification of dummy leg positioning is required in S22.4.3.6 and S24.4.3.6.

Comment 3: Dummy Temperatures in S20, 22, 24 and 26

The stabilized temperature of the dummy required in the barrier crash test conditions, as in S16.2.8, is also needed for the out-of-position test conditions.

We would like NHTSA to add the following requirement in S20, 22, 24 and 26:

The stabilized temperature of the dummy is at any level between 20.6°C and 22.2°C (69°F to 72°F).

Comment 4: Out-of-Position test procedure for AF5% dummy in S26.3.7

We believe the same provision to adjust the dummy as close as possible to the prescribed position, as S26.2.8 for Driver Position 1 (Chin on module), should be added for Driver Position 2 (Chin on rim), for similar reasons.

We would like NHTSA to amend the requirements of S26.3.7 as follows:

S26.3.7

Position the dummy so that the center of the chin is in contact with the uppermost portion of the rim of the steering wheel. Do not hook the chin over the top of the rim of the steering wheel. Position the chin to rest on the upper edge of the rim, without loading the neck. If the dummy's head contacts the vehicle windshield or upper interior before the prescribed position can be obtained, lower the dummy until there is no more than 5 mm (0.2 in.) clearance between the vehicle's windshield or upper interior, as applicable. *If the seat prevents the dummy chin from attaining this position, adjust the dummy to as close to the prescribed position as possible.*

Comment 5: Overlap Tolerance for Off-set Crash Test

According to Honda's internal test results, if the overlap rate between the vehicle and ODB is less, the chest deflection is worse. Our data shows that if the overlap difference is ± 50 mm, the chest deflection difference can vary as much as 20 mm. Therefore, we believe that NHTSA should adopt the overlap tolerance of ± 20 mm, same as 96/79/ec-Annex2-Appendix1 1.3.1, in order to reduce the difference of the chest deflection results.

We would like NHTSA to amend the requirements of S18.2.4 as follows:

S18.2.4

.... The test vehicle shall be aligned so that the vehicle strikes the barrier with 40 percent overlap on the left side of the vehicle, with the vehicle's front engaging the barrier face such that the vehicle's longitudinal centerline is offset outboard of the edge of the barrier face by 10 percent of the vehicle's width **± 20 mm (0.8 in.)** as illustrated in Figure 10.

Comment 6: Dummy setting procedures for AF5% dummy

Comment 6-1: If the initial seat position for installing the dummy is not prescribed, the contact position between the calves of legs and the seat cushion is varied depending on the seat position, and as a result, the dummy's hip position is not repeatable. Therefore, we believe that NHTSA should prescribe the rearmost position, where it is easy to install the dummy for most vehicles, as the initial seat position for the dummy setting.

We would like NHTSA to amend the requirements of S16.3.2.1.2 as follows:

S16.3.2.1.2

Install the dummy into the driver's seat. ***Set the seat in the rearmost position*** to facilitate dummy installation.

Comment 6-2: If the initial width between the knees for installing the dummy is not prescribed, the dummy's hip position is not repeatable. Therefore, we believe that NHTSA should prescribe the initial knee width requirement to be the same as in S16.3.2.2.2.

We would like NHTSA to amend the requirements of S16.3.2.1.6 as follows:

S16.3.2.1.6

Set the initial transverse distance between the longitudinal centerline of the dummy's knees at 160 to 170 mm (6.3 to 6.7 in.), with the thighs and legs of the dummy in vertical planes. Place the legs at 90 degrees to the thighs. Push

Comment 6-3: If the steering wheel is included as part of the vehicle interior, there is the possibility that the seat could end up closer to the mid position. Therefore, we believe that NHTSA should make clear that the steering wheel is not included as part of the vehicle interior.

We would like NHTSA to amend the requirements of S16.3.2.1.8 as follows:

S16.3.2.1.8

.... If the seat is a power seat, position the seat to avoid contact while assuring that there is a maximum of 5 mm (0.2 in.) distance between the vehicle interior and the point on the dummy that would first contact the vehicle interior. ***For purposes of this section, the vehicle interior does not include the steering wheel.***

Comment 6-4: There is no prescription for a vehicle with a footrest. Therefore, we believe that NHTSA should prescribe the procedure for a vehicle with a footrest the same as in S10.6.1.2.

We would like NHTSA to amend the requirements of S16.3.2.3.4 as follows:

S16.3.2.3.4

If the left foot cannot be positioned on the toe board, place the foot flat on the floor pan as far forward as possible. ***For vehicles with a footrest that does not elevate the left foot above the level of the right foot, place the left foot on the footrest so that the upper and lower leg centerlines fall in a vertical plane.***